



bushfire&natural
HAZARDSCRC

USING PARTICIPATORY MAPPING IN BUSHFIRE PREPARATION: HARNESSING LOCAL KNOWLEDGE AND INCREASING COMMUNITY CONNECTEDNESS

Billy Haworth

PhD Candidate, School of Geosciences University of Sydney, NSW

Web + blog: www.billyhaworth.com

Twitter: @BillyTusker

Joshua Whittaker, University of Wollongong

Eleanor Bruce, University of Sydney



VOLUNTEERED GEOGRAPHIC INFORMATION (VGI)



Graphic: Ushahidi Crowdmap

VOLUNTEERED GEOGRAPHIC INFORMATION



Source: gettyimages



Source: <https://www.youtube.com/watch?v=Fh3wIOyQbPY>

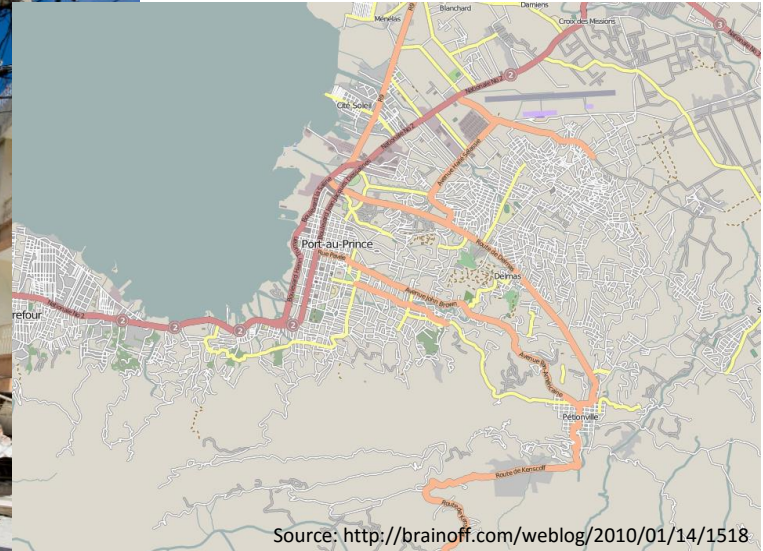


VGI IN DISASTER MANAGEMENT

VGI & BUSHFIRE PREPARATION IN TASMANIA



Source: Wikipedia



Source: <http://brainoff.com/weblog/2010/01/14/1518>



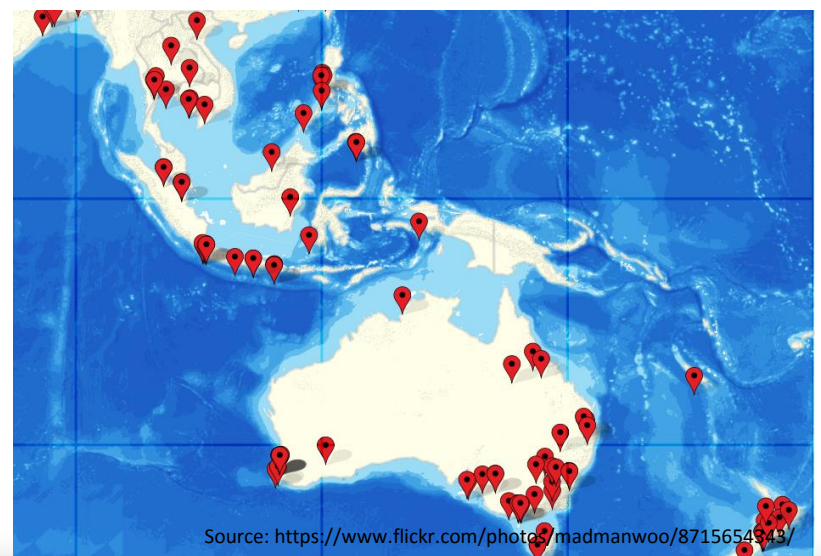
Source: ABC



APPLYING VGI: PARTICIPATORY MAPPING



PARTICIPATORY MAPPING



APPLYING VGI: PARTICIPATORY MAPPING



Map interface showing a satellite view of a coastal area with several numbered red pins. The map includes labels for roads like Waterworks Rd, Woodcutters Rd, Hillcrest Rd, and Southern Outlet. A legend on the right lists 8 items:

Name
1 fuel reduction
2 Mount Nelson Oval
3 Mt Nelson Fire Station
4 Needs attention
5 Olinda Grove Sports Ground
6 Private road. Foot access
7 The Fly Over
8 Water supply - communications

Map interface showing a satellite view of a coastal area with several numbered pins and a purple highlighted path. A legend on the right lists 16 items:

Name
1 Bruny Island Ferry - Community Asset
2 Communications Tower (Opus)
3 Emergency Safe Place
4 Fire Station
5 Hall
6 Helicopter Pad
7 Helicopter Pad
8 NBP - Kobering Community Hall & Oval
9 Oyster Cove Inn - Community Asset
10 Shop - Community Asset
11 Significant Hazard
12 Significant Hazard
13 Significant Hazard
14 Significant Hazard
15 Telstra telephone exchange
16 Ye Olde Oyster Cove shop

APPLYING VGI: PARTICIPATORY MAPPING



**LET'S GET
PHYSICAL**

CRITICAL

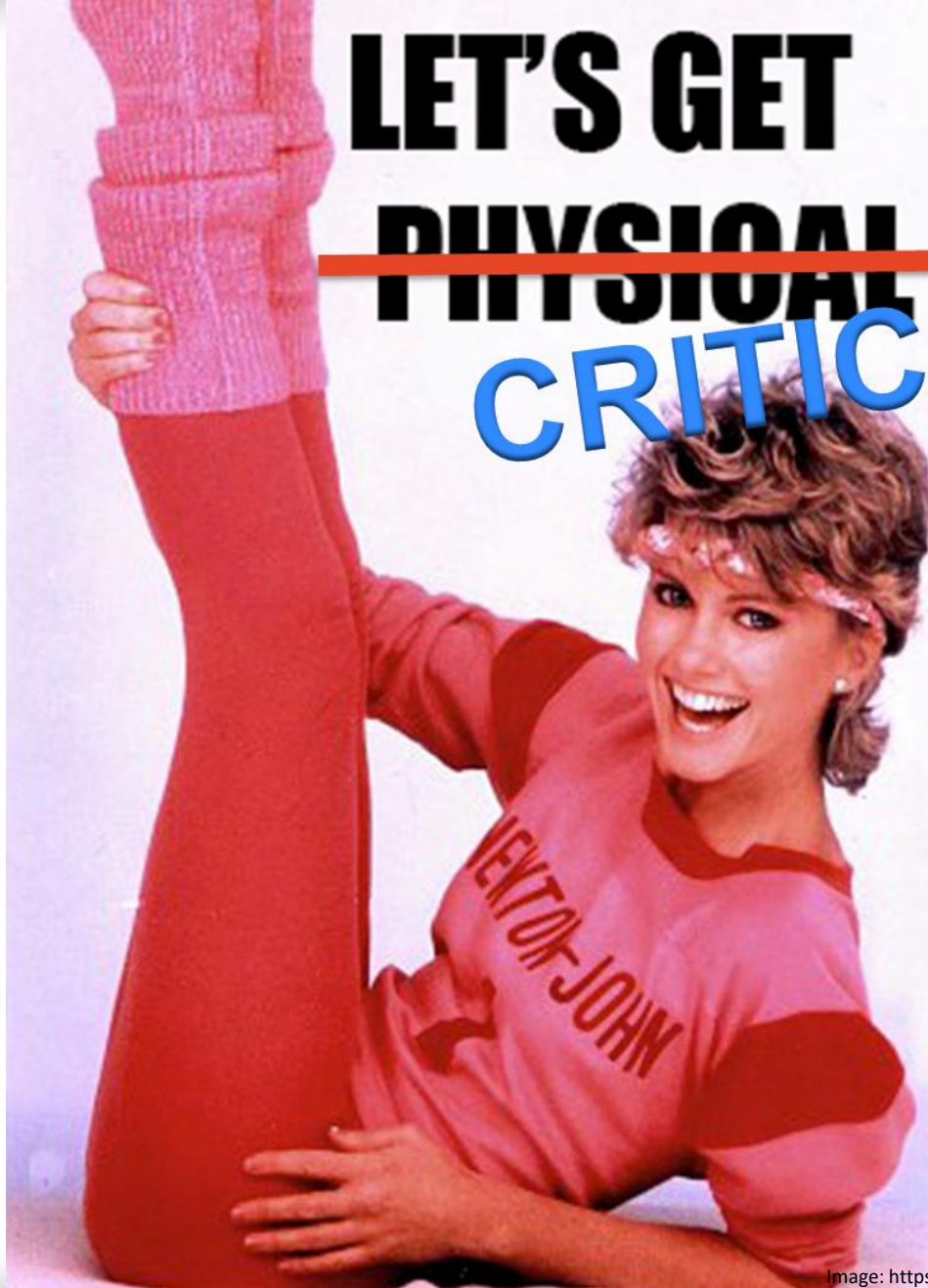


Image: <https://teflmaterial.files.wordpress.com/2014/09/olivia.jpg>

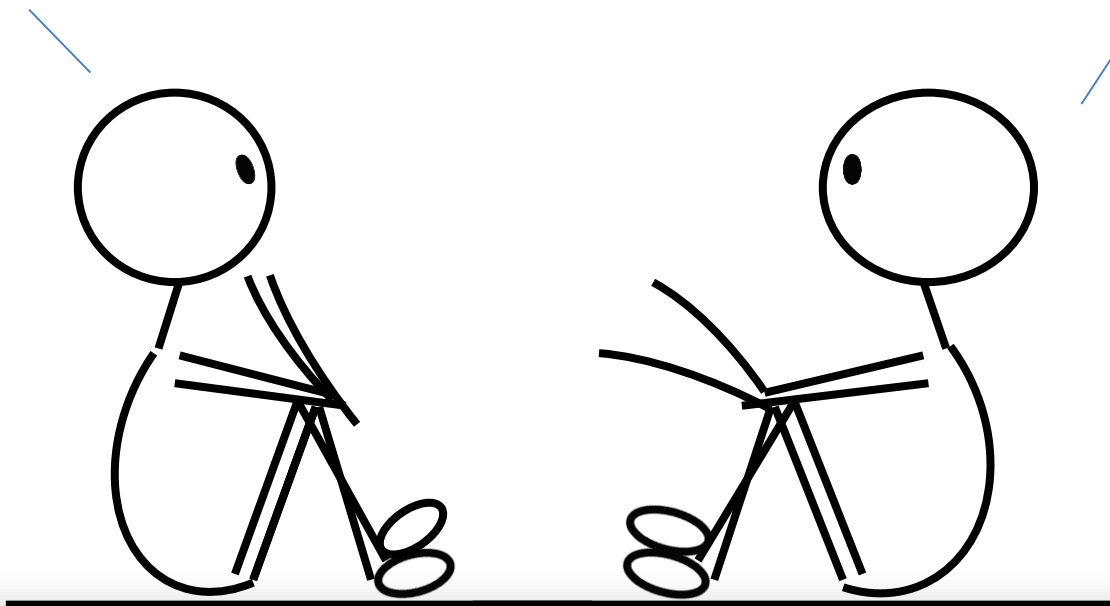
WAYS FORWARD

Hey, what is Citizen Science?

Um, a way to get volunteers to collect data.

Then why should I care?

It is a way to support fundamental rights for people to access methods of knowledge production.



CO/ Caren Cooper, @CoopSciScoop

CONCLUSION

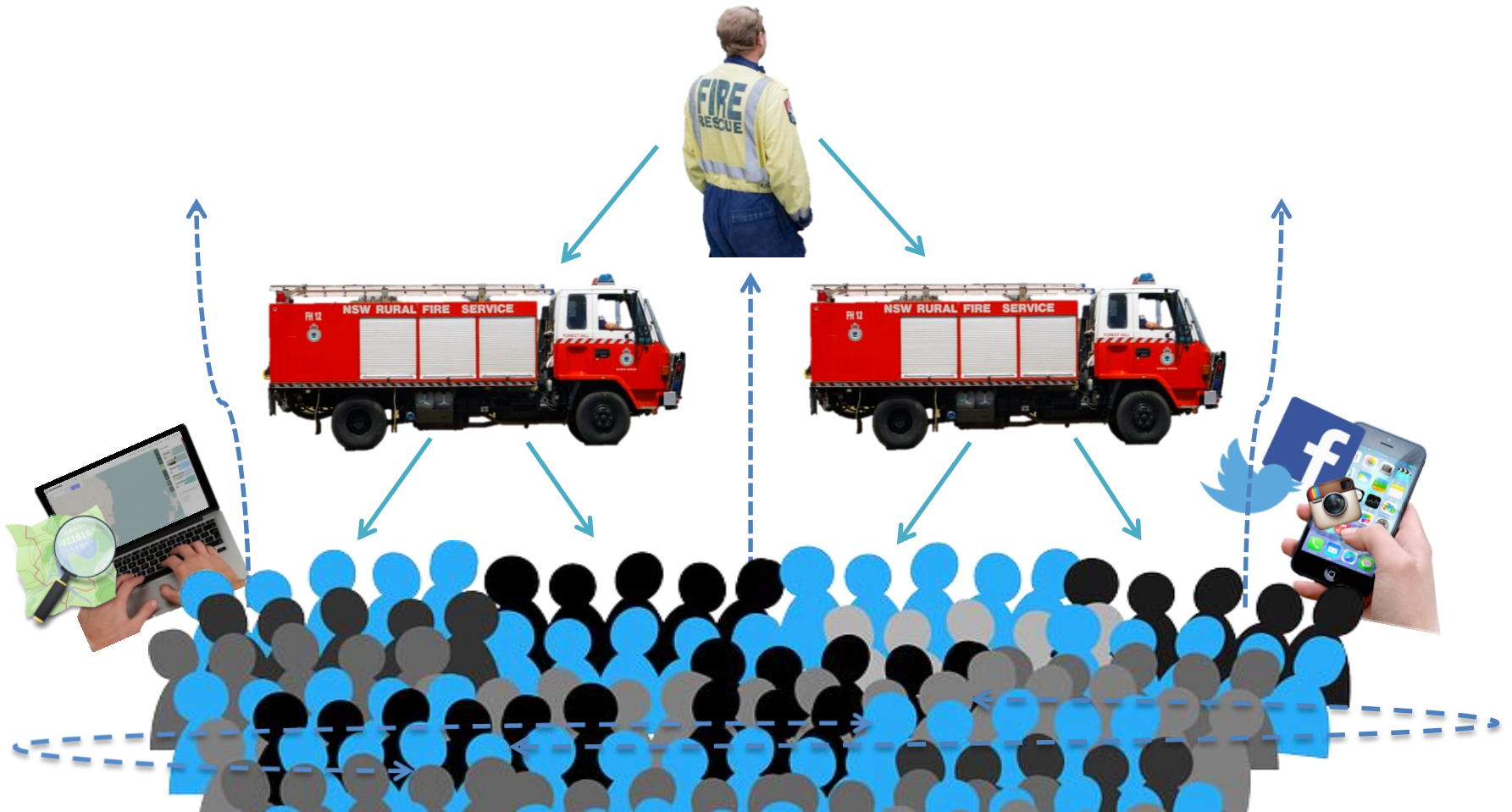


Image credits: NZ Defence Force (Wiki); NSWRFs – Forest Hill Pumper – adapted from Bidgee (Wiki)

THANK YOU

Billy Tusker Haworth

E: billy.haworth@sydney.edu.au

Web + Blog: www.billyhaworth.com

Twitter: [@BillyTusker](https://twitter.com/BillyTusker)

Thanks to:

Bushfire & Natural Hazards CRC

Peter Middleton, BRN team,

Tasmania Fire Service

International Association of Wildland Fire

Kurt Iveson, Matt Duckham,

Vicki Haworth, David Gage, Stephanie Duce



THE UNIVERSITY OF
SYDNEY

Relevant publications

Peer reviewed journal articles:

Haworth, B., Whittaker, J. & Bruce, E. (accepted subject to revisions). Assessing the application and value of VGI and participatory mapping for community bushfire preparation. *Applied Geography*.

Haworth, B. (2016). Emergency management perspectives on volunteered geographic information: Opportunities, challenges and change. *Computers, Environment and Urban Systems* 57: 189-198.

Haworth, B., Bruce, E. and Middleton, P. (2015). Emerging technologies for risk reduction: Assessing the potential use of social media and VGI for increasing community engagement in bushfire preparation. *Australian Journal of Emergency Management* 30(3): 36-41.

Haworth, B. & Bruce, E. (2015). A review of volunteered geographic information for disaster management. *Geography Compass* 9(5): 237-250.

Posters:

Haworth, B., Whittaker, J. & Bruce, E. (2016). Using participatory mapping to increase community engagement in bushfire preparation. *AFAC/BNHCRC annual conference, Brisbane, August 2016*.

Haworth, B. (2015). Power to the people: The implications of volunteered geographic information for official emergency management. *AFAC/BNHCRC annual conference, Adelaide, September 2015*.

Haworth, B., Bruce, E. & Whittaker, J. (2014). Non-traditional volunteering: Volunteered geographic information (VGI) and bushfire preparation. *AFAC/BNHCRC annual conference, Wellington, September 2014*.